

Geological Technics Inc.

Work Plan

Additional Soil Investigation

**Ham's Station
34950 Hwy. 88
Pioneer, Amador County CA**

**August 5, 2005
Project No. 808.2**

**Submitted to:
Mr. Thomas A. Newcomer
Ham's Station
34950 Hwy. 88
Pioneer, CA 95666**

**Prepared by:
Geological Technics Inc.
1101 7th Street
Modesto, California 95354
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Project No.: 808.2
Project Name: Ham's Station

Mr. Thomas A. Newcomer
Ham's Station
34950 Hwy. 88
Pioneer, California 95666

RE: Work Plan: Additional Soil Investigation
Location: Ham's Station, 34950 Hwy. 88, Pioneer, Amador County, CA

Dear Mr. Newcomer:

Geological Technics Inc. is pleased to present the attached Work Plan for additional soil investigation work at Ham's Station, 34950 Hwy. 88, Pioneer, Amador County, CA.

This plan calls for:

- Advancing five (5) hand auger borings and collecting soil samples.
- Prepare and submit a soil investigation report.

If you have any questions or need additional information, please contact me. Thank you for this opportunity to serve your environmental needs.

Sincerely,

Raynold I. Kablanow II, Ph.D.
Vice President

cc: Kirk T. Larson – CRWQCB
Bob Fourt – Amador County Environmental Health Department

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1.0 INTRODUCTION

Hams Station (HS) is a restaurant and bar located at 5,433 feet in the Sierra Nevada Mountains, on the south side of Highway 88 in Amador County, which also included a fueling station until January 1999.

In January 1999, five underground storage tanks (USTs) were removed from the Hams Station (HS) property. Soil and groundwater samples collected around the tank showed that gasoline hydrocarbons were present in the soil and groundwater.

In October of 1999, 244.4 tons of soil was excavated from the former tank pit. The soil was removed, under manifest, from the site in November of 1999. In October through December of 1999, Geological Technics Inc. (GTI) performed a soil gas survey at the site. Both the soil removal and soil gas survey are discussed in the *Source Removal, Receptor Survey and Soil Gas Survey Report* – January 31, 2000.

In the *Site Characterization – Monitoring Well Installation Report* – December 12, 2000, GTI recommended the site for closure. Mr. Kirk Larson of the Regional Water Quality Control Board Central Valley Region (RWQCB) responded by directing the initiation of a quarterly groundwater monitoring/sampling schedule (January 8, 2001 letter).

GTI prepared and submitted a *Risk Evaluation & Appendix B Site Closure Checklist* on May 30, 2002. Mr. Larson responded in a letter dated September 19, 2002, stating that the RWQCB was "...unable to concur with closure at this time because the extent of soil contamination has not been adequately defined".

On December 30, 2002, GTI prepared and submitted the work plan: *Additional Soil and Groundwater Investigation*. Mr. Larson approved the work plan in a letter dated January 30, 2003.

A soil boring, six (6) hand auger borings and four (4) monitoring wells were installed during October 2003 in accordance with the December 2003 work plan. The results of the additional site investigation activities are discussed in the *Additional Site Characterization Report* dated January 16, 2004. The additional monitoring wells have been included in the routine quarterly groundwater monitoring events since their installation.

On February 7, 2005, GTI submitted the Site Characterization, Risk Evaluation & Appendix B Site Closure Checklist Report. In a letter dated July 22, 2005, Mr. Larson requested a work plan to define the nature and extent of a soil vapor anomaly detected at the site. The following work plan addresses this request.

2.0 PROPOSED INVESTIGATION

To investigate the lateral extent of the soil zone contamination, we propose to drill five (5) hand auger boreholes to the top of the bedrock, approximately 3 to 10 feet bgs depending on location, and collect soil samples. See Figure 2 for auger boring locations.

2.1 Hand Auger Borings

Five hand auger borings will be advanced to the interface between topsoil and the underlying bedrock (Interface). Up to two soil samples will be collected from each boring for laboratory analysis. One soil sample will be collected at 2.5 feet bgs and one at the Interface of each boring. If the Interface is less than 4 feet bgs, the second sample will not be collected.

2.2 Hand Auger Soil Sampling Procedures

The Interface is expected to be between 3 and 10 feet bgs. A grid will be laid out and marked for the locations of each boring. GTI personnel will hand auger to depth and collect a sample using a slide-hammer sample-collecting tool lined with a 6-inch brass tube. The brass tube will be extracted and capped on both ends with Teflon sheets and plastic caps. The sample tubes will be labeled and placed in a cooled ice chest for transport to the laboratory.

The auger tool will be decontaminated, using an Alconox solution and clean water rinse, after each use. Disposable gloves will be used by the technician to collect all samples and will be changed with each sampling event.

2.3 Hand Auger Soil Laboratory Analyses

Up to two soil samples from each hand auger boring will be submitted to a state certified analytical laboratory for the following analysis:

- BTEX by EPA method 8020/8015
- TPH-G by EPA method 8020/8015
- MtBE by EPA method 8260

A Chain of Custody will be completed for all samples collected and tracked to ensure sample integrity.

3.0 SCHEDULE & REPORTING

Geological Technics Inc. anticipates beginning fieldwork within 45 days of CRWQCB approval. The information gathered during this phase of work will be presented in a report, which will include a summary of the geology as well as the results of sample analyses. Dr. Ray Kablanow, a registered professional geologist, will supervise the project. Copies of the report will be forwarded to the appropriate County and State regulatory agencies.

4.0 SIGNATURES & CERTIFICATION

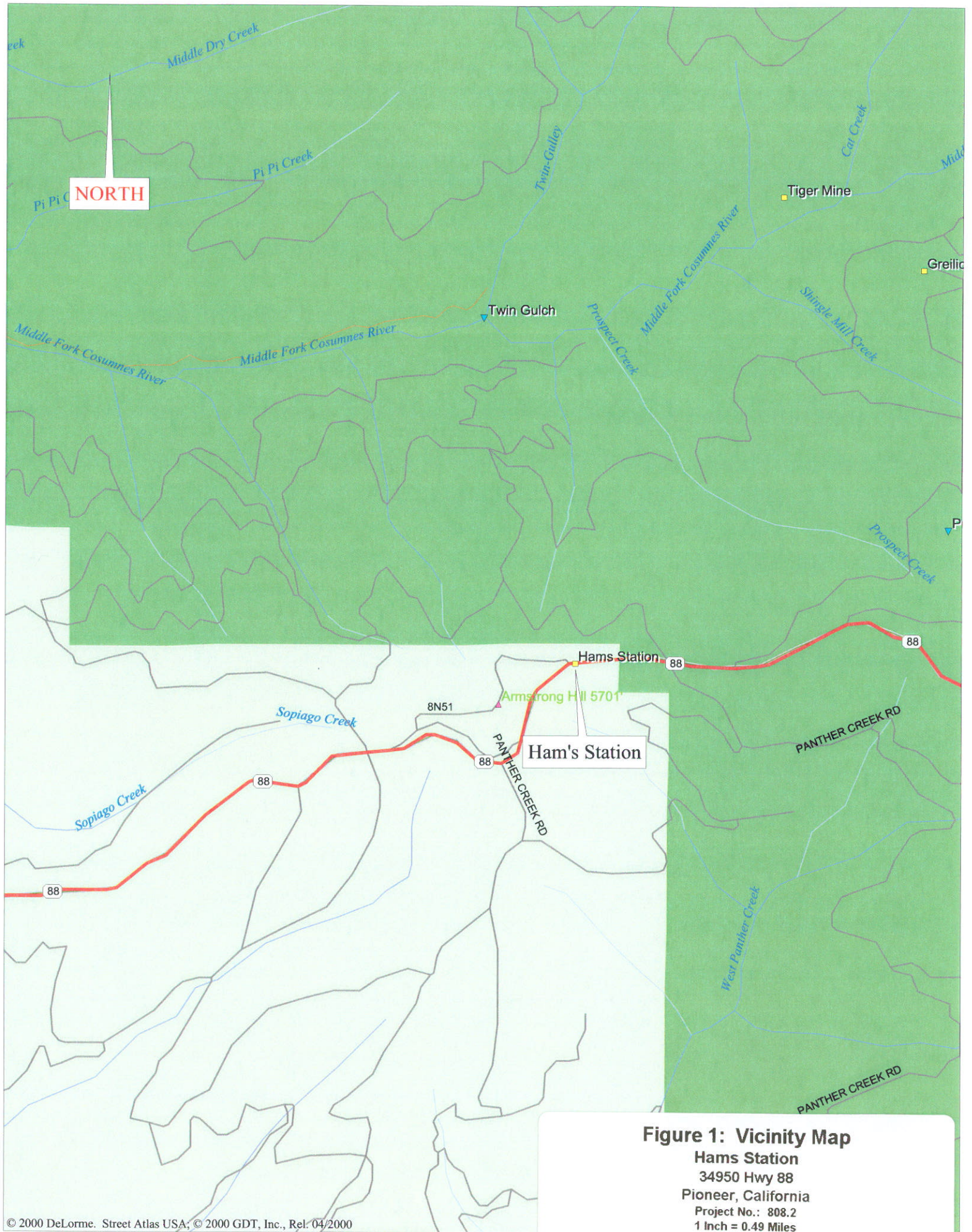
Geological Technics Inc. will perform this project in accordance with accepted geologic and hydrologic standards of the State of California accepted and in effect at the time of this investigation. Geological Technics Inc. is not responsible for undisclosed conditions.

This work plan was prepared by:

Eric L. Price
Geologist

Raynold Kablanow II, Ph.D.
California Professional Geologist #5234
Certified Hydrogeologist #442



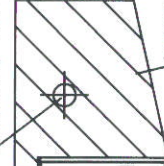


Highway 88

Fog Line

EOP

Monitoring Well



Approx Limits of Excavation

Shed

Patio

Store

Bathroom

Cabin

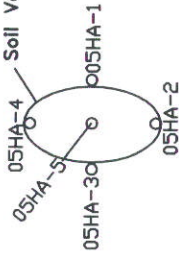
Cabin

Cabin



Domestic Well

Soil Vapor Anomaly



Benchmark

Fig 2: Site Map

Ham Station
34950 Hwy 88
Pioneer, CA

Project No. 808.2

Geological Technics Inc. 1/24/03

LEGEND

- Monitoring Well
- Domestic Well
- Benchmark
- Pit Excavation
- Structures and Dwellings
- Hand Auger Borings

0 50' SCALE

